Search Strategy

FILE 'USPATFULL' ENTERED AT 12:16:52 ON 22 JAN 2004

		E	LOU SHENG C/IN
L1	1	S	E3
		E	HUNT JEFFREY C/IN
L2	11	S	E3
L3	11	S	L2 AND ANTIBOD?
L4	4	S	L3 AND (HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
		E	KONRATH JOHN G/IN
L5	1	S	E3
		E	SCHEFFEL JAMES W/IN
L6	2	S	E3
		E	TYNER JOAN D/IN
L7	11	S	E3
L8	6	S	L7 NOT (L1 OR L2)
L9	30320	S	(HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L10	3109	S	L9 AND (HIV-1 AND HIV-2)
L11	2278	S	L10 AND (GAG OR P24 OR P26 OR CA OR CAPSID)
L12	48	S	L11 AND (P24 AND P26)
L13	40	S	L12 AND (MONOCLONAL ANTIBOD?)
L14	12	S	L13 AND (P24/CLM OR P26/CLM OR CA/CLM OR CAPSID/CLM)
L15	11	S	L14 AND ANTIBOD?/CLM

FILE 'MEDLINE' ENTERED AT 12:29:05 ON 22 JAN 2004

		E	LOU S C/AU
L16	7	S	E3
		E	LOU S/AU
L17	20	S	E3
L18	2	S	L17 AND ANTIBOD?
		E	HUNT J C/AU
L19	116	S	E3
L20	18	S	L19 AND ANTIBOD?
L21	10	S	L20 AND (HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L22	9	S	L21 NOT L16
		E	KONRATH J G/AU
L23	2	S	E3
		E	SCHEFFEL J W/AU
L24	16	S	E3
		E	TYNER J D/AU
L25	1	S	E3
L26	137734	S	(HIV OR HUMAN IMMUNODEFICIENCY VIRUS)
L27	3051	S	L26 AND (HIV-1 AND HIV-2)
L28	1056	S	L27 AND ANTIBOD?
L29	147	S	L28 AND (P24 OR P26 OR CA OR CAPSID)
L30	4	S	L29 AND (P24 AND P26)

L4 ANSWER 3 OF 4 USPATFULL on STN

94:110663 Monoclonal antibody for differentiating HIV-2 from HIM-1 seropositive individuals.
Hunt, Jeffrey C., Lindenhurst, IL, United States
Sarin, Virender K., Libertyville, IL, United States
Devare, Sushil G., Northbrook, IL, United States
Tribby, Ilse I. E., Chicago, IL, United States
Desai, Suresh M., Libertyville, IL, United States
Casey, James M., Gurnee, IL, United States
Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)
US 5374518 19941220
APPLICATION: US 1992-952482 19920928 (7)
DOCUMENT TYPE: Utility; Granted.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A mouse monoclonal antibody is provided which detects HIV-2 seropositive individuals and differentiates them from HIV-1 seropositive individuals. The monoclonal antibody is specific for an epitope of HIV-2 gp41 which lies outside the characterized immunodominant region. The epitope recognized by the monoclonal antibody has the amino acid sequence HTTVPW.

CLM What is claimed is:
1. A monoclonal antibody which recognizes an epitope of a HIV-2 gp41 antigen comprising the amino acid sequence HTTVPW but which does not bind to HIV-1, and whose binding to said epitope depends on the binding of the antigen combining site of the antibody to the amino acid residues present in the amino acid sequence HTTVPW.

2. The monoclonal antibody of claim 1 produced by ATCC Deposit No. HB 10012.

3. A hybridoma cell line producing a monoclonal antibody which recognizes an epitope of a HIV-2 gp41 antigen comprising the amino acid sequence HTTVPW but which does not bind to HIV-1, and whose binding to said epitope depends on the binding of the antigen combining site of the antibody to the amino acid residues present in the amino acid sequence HTTVPW.

4. The hybridoma cell line of claim 3, wherein said cell line is ATCC Deposit No. HB 10012.

5. A peptide, consisting of an amino acid sequence HTTVPW which specifically binds antibody to HIV-2 but which does not bind antibody to HIV-1.

6. A competitive assay for differentiating HIV-2 infection from HIV-1 infection, comprising the steps of: a. contacting a biological sample with (i) a monoclonal antibody, which recognizes an epitope of a HIV-2 gp41 antigen comprising the amino acid sequence HTTVPW but which does not bind to HIV-1, and whose binding to said epitope depends on the binding of the antigen combining site of the antibody to the amino acid residues present in the amino acid sequence HTTVPW, and (ii) with a solid phase to which has been attached a recombinant or native HIV-2 gp41 protein containing said sequence, thereby forming a mixture; b. incubating said mixture for a time and under conditions sufficient to form complexes of monoclonal antibody/solid phase and/or biological sample/solid phase; and c. determining the amount of monoclonal antibody bound to said solid phase as an indication of exposure to HIV-2.

7. The method of claim 6, wherein said monoclonal antibody is produced by ATCC Deposit No. HB 10012.

8. The method of claim 6, wherein said monoclonal antibody is labeled with a detectable label.

9. A method for detecting HIV-2 infection comprising reacting a test sample with one or more reagents selected from the group consisting of (i) a monoclonal antibody, which recognizes an epitope of a HIV-2 gp41 antigen comprising the amino acid sequence HTTVPW but which does not bind to HIV-1, and whose binding to said epitope depends on the binding of the antigen combining site of the antibody to "said" the amino acid residues present in the amino acid sequence HTTVPW, and (ii) an antigen comprising the amino acid sequence HTTVPW which specifically binds to HIV-2 but which does not bind to HIV-1.

10. A method for determining the presence of antibody to HIV-2 gp41 in a biological sample, comprising the steps of: a. contacting the sample with an antigen consisting of the amino acid sequence HTTVPW, whereby an antigen/antibody complex is formed; and b. determining the amount of said complex formed as an indication of the presence of antibody to HIV-2 gp41 in the sample.

11. A kit for use in detecting exposure of an individual to HIV-2, comprising a container of monoclonal antibody which recognizes an epitope of a HIV-2 gp41 antigen comprising the amino acid sequence HTTVPW but which does not bind to HIV-1, and whose binding to said epitope depends on the binding of the antigen combining site of the antibody to the amino acid residues present in the amino acid sequence HTTVPW.

12. A kit for use in detecting exposure of an individual to HIV-2, comprising a container of immobilized antigen which specifically binds antibody to HIV-2 gp41 but which does not bind antibody to HIV-1, wherein said antigen consists of the amino acid sequence HTTVPW.

L4 ANSWER 4 OF 4 USPATFULL on STN

92:104887 Mouse monoclonal antibodies to hiv-1p24 and their use in diagnostic tests.
Mehta, Smriti U., Libertyville, IL, United States
Hunt, Jeffrey C., Lindenhurst, IL, United States
Devare, Sushil G., Northbrook, IL, United States
Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)
US 5173399 19921222
APPLICATION: US 1988-204798 19880610 (7)
DOCUMENT TYPE: Utility; Granted.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides monoclonal antibodies demonstrating specific reactivity with HIV-1 p24. One monoclonal antibody designated 31-42-19 recognizes an unique epitope on HIV-1 p24 that is not immunogenic in humans. 31-42-19 also reacts with an antigenically cross reactive epitope on HIV-2 p24. Another monoclonal antibody designated 31-90-25 recognizes an epitope within a highly immunogenic region of HIV-1 p24. The present invention also provides cell lines capable of producing these monoclonal antibodies. The invention also includes a highly sensitive enzyme immunoassay for the detection of HIV-1 p24 in biological fluids, using a monoclonal antibody mixture.

The present invention further provides methods for the use of these monoclonal antibodies for the detection of anti-HIV-1 p24 antibodies and HIV-2 p24 antigen in biological samples.

CLM What is claimed is:

1. An immunoassay for the detection of HIV-I p24 antigen in a test sample comprising forming an antibody/antigen complex wherein the antibody portion of said complex comprises a mixture of murine monoclonal antibodies, at least one monoclonal antibody of said mixture being capable of specifically binding to an epitope on HIV-I p24 to which epitope human anti-HIV-I p24 lgG does not competitively bind, and at least one other monoclonal antibody of said mixture being capable of binding to a different epitope of HIV-I p24 to which different epitope human anti-HIV-I p24 lgG competitively binds, and detecting the presence or amount in picogram sensitivity of the antibody/antigen complex formed.

2. The immunoassay of claim 1 wherein the presence or amount of the antibody/antigen complex formed is determined by incubating said complex with a labelled, anti-species antibody specific for said monoclonal antibodies.

3. The immunoassay of claim 2 wherein said label comprises a radioisotope, enzyme, fluorescent compound, chemiluminescent compound, or member of a specific binding pair.

4. The immunoassay of claim 1 wherein the antibody which binds to the epitope on HIV-1 p24 to which epitope human anti-HIV-1 p24 IgG does not competitively bind is monoclonal antibody 31-42-19 and the antibody which binds to the different epitope to which different epitope human anti-HIV-1 p24 IgG competitively binds is monoclonal antibody 31-90-25.

5. The immunoassay of claim 4 wherein said monoclonal antibodies 31-42-19 and 31-90-25 are in solution.

6. The immunoassay of claim 4 wherein said monoclonal antibodies 31-42-19 and 31-90-25 are coated on a solid support.

7. The immunoassay of claim 5 wherein said antibody portion of said complex further comprises human anti-HIV-I IgG coated on a solid support.

8. The immunoassay of claim 6 wherein said antibody portion of said complex further comprises an anti-HIV-I antibody or a fragment thereof.

9. The immunoassay of claim 8 wherein said antibody portion of said complex further comprises anti-HIV-I F(ab')2.

10. The immunoassay of claim 9 wherein said antibody portion of said complex further comprises anti-HIV-I p24 F(ab')2.

11. A diagnostic reagent for detection of HIV-1 p24 antigen or HIV-2 p24 antigen comprising a monoclonal antibody which specifically binds to an epitope on HIV-1 p24 to which epitope human anti-HIV-1 p24 IgG does not competitively bind and which monoclonal antibody also specifically binds to HIV-2 p24.

12. An immunoassay for the detection of HIV-1 p24 antigen in a human test sample comprising: a. contacting a human test sample with a solid support coated with human anti-HIV-1 IgG for a time and under

conditions sufficient to form antibody/antigen complexes; b. contacting said complexes with a murine monoclonal antibody mixture comprising monoclonal antibodies 31-42-19 secreted by ATCC HB 9726 and 31-90-25 secreted by ATCC HB 9725 for a time and under conditions sufficient to form antibody/antigen/antibody complexes; c. contacting said antibody/antigen/antibody complexes with an anti-mouse antibody or fragment thereof conjugated to a detectable label capable of generating a measurable signal; d. measuring the signal generated to determine the presence of HIV-1 p24 in picogram sensitivity in the test sample.

13. The immunoassay of claim 12 wherein said solid support is simultaneously contacted with said human test sample and said mouse monoclonal antibody mixture.

14. An immunoassay for detection of the presence or amount of HIV-2 p24 antigen in a human test sample, comprising forming an antibody/antigen complex wherein the antibody portion of said complex comprises a monoclonal antibody capable of specifically binding to an epitope on HIV-1 p24 to which epitope human anti-HIV-1 p24 IgG does not competitively bind and which monoclonal antibody also specifically binds to HIV-2 p24 , and detecting the presence or amount of the antibody/antigen complex formed.

15. A diagnostic kit for the detection of HIV-1 p24 antigen comprising: a container containing a mixture of at least two murine monoclonal antibodies wherein at least one monoclonal antibody of said mixture specifically binds to an epitope on HIV-1 p24 to which epitope human anti-HIV-1 p24 IgG does not competitively bind and wherein at least one other monoclonal antibody of said mixture specifically binds to a different epitope of HIV-1 p24 to which different epitope human anti-HIV-1 p24 IgG competitively binds.

16. The diagnostic kit of claim 15 wherein said murine monoclonal antibody which specifically binds to an epitope on HIV-1 p24 to which epitope human anti-HIV-1 p24 IgG does not competitively bind is designated as monoclonal antibody 31-42-19 secreted by the hybridoma cell line ATCC 9726 and wherein said monoclonal antibody which is capable of binding to a different epitope of HIV-1 p24 to which different epitope human anti-HIV-1 p24 IgG competitively binds is designated as the 31-90-25 monoclonal antibody secreted by the hybridoma cell line ATCC HB 9725.

17. The immunoassay of claim 12 wherein said solid support is selected from the group consisting of wells of reaction trays, test tubes, polystyrene beads, strips, membranes and microparticles.

18. The immunoassay of claim 12 wherein said label is selected from the group consisting of enzymes, radioisotopes, fluorescent compounds and chemiluminescent compounds.

19. The immunoassay of claim 18 wherein said enzymatic label is horseradish peroxidase.

20. The immunoassay of claim 12, 18 or 19 further comprising a hapten and labelled anti-hapten system wherein the hapten is conjugated to the labeled murine monoclonal antibody.

21. The diagnostic reagent of claim 20 wherein said monoclonal antibody is the monoclonal antibody secreted by the hybridoma cell line A.T.C.C. HB 9726.

L15 ANSWER 9 OF 11 USPATFULL on STN

96:38768 T-lymphotropic retrovirus monoclonal antibodies.
Butman, Bryan T., Walkersville, MD, United States
Venetta, Thomas M., Derwood, MD, United States
Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)
US 5514541 19960507
APPLICATION: US 1994-304977 19940913 (8)
DOCUMENT TYPE: Utility; Granted.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to monoclonal antibodies, cell lines producing the monoclonal antibodies, assays using the antibodies for the detection of HIV-1 and HIV-2 gene products, and diagnostic kits. More particularly, the monoclonal antibodies react with the p24/p26 capsid protein. Assays using monoclonal antibodies that can simultaneously detect HIV-1 and HIV-2 are disclosed.

CLM What is claimed is:
1. A monoclonal antibody that cross-reacts with an epitope of p24 of HIV-1 and p26 of HIV-2, said epitope located within amino acid residues 142-158 of p24 based on the numbering depicted in FIG. 9.

2. A diagnostic kit for the detection of HIV-1 and HIV-2, comprising: (1) a container containing the monoclonal antibody of claim 1; and (2) a container containing a labeled anti-HIV antibody that can detect immunocomplexes of the monoclonal antibody and the antigen of at least one of HIV-1 and HIV-2.

3. The diagnostic kit of claim 1, further comprising an additional monoclonal antibody that reacts with an antigen of HIV-1, wherein said additional monoclonal antibody does not react with said epitope of claim 1.

4. The diagnostic kit of claim 3, wherein said additional monoclonal antibody that reacts with an antigen of HIV-1 binds to an epitope located within amino acid residues 263-344 of p24.

5. A method for detection of HIV-1 and HIV-2 antigens in a sample, comprising contacting said sample with the monoclonal antibody of claim 1, and measuring the formation of antigen-antibody complexes.

6. The method of claim 5, further comprising contacting the sample with an additional monoclonal antibody that has reactivity with an epitope of HIV-1 other than the epitope of the monoclonal antibody of claim 5, prior to measuring the formation of antigen-antibody complexes.

7. The method of claim 6, wherein the additional monoclonal antibody binds with an epitope located within amino acid residues 263-344 of p24, based on the numbering depicted in FIG. 5.

8. A method for detection of HIV-1 and HIV-2 antigens in a sample, which comprises contacting said sample with the monoclonal antibody of claim 1, and an additional antibody that reacts with an antigen of HIV-1 or HIV-2 but does not react with the epitope to which the monoclonal antibody of claim 1 reacts, and measuring the formation of antigen-antibody complexes.

9. A monoclonal antibody according to claim 1, wherein said monoclonal antibody is 7-D4.

10. A cell line for producing the monoclonal antibody according to claim 9, having ATCC Accession Number HB 11254.

11. The diagnostic kit of claim 2, wherein said monoclonal antibody is monoclonal antibody 7-D4.

12. The method of claim 8, comprising contacting the sample with the monoclonal antibody 7-D4.

L16 ANSWER 1 OF 7 MEDLINE on STN

2001482949 Document Number: 21417412. PubMed ID: 11526139. Seven human immunodeficiency virus (HIV) antigen-antibody combination assays: evaluation of HIV seroconversion sensitivity and subtype detection. Ly T D; Martin L; Daghfal D; Sandridge A; West D; Bristow R; Chalouas L; Qiu X; Lou S C; Hunt J C; Schochetman G; Devare S G. (Laboratoire Claude Levy, Ivry sur Seine, France.) JOURNAL OF CLINICAL MICROBIOLOGY, (2001 Sep) 39 (9) 3122-8. Journal code: 7505564. ISSN: 0095-1137. Pub. country: United States. Language: English.

AB In this study, we evaluated the performance of two prototype human immunodeficiency virus (HIV) antigen-antibody (Ag-Ab) combination assays, one from Abbott Laboratories (AxSYM HIV Ag-Ab) and the other from bioMerieux (VIDAS HIV Duo Ultra), versus five combination assays commercially available in Europe. The assays were Enzygnost HIV Integral, Genscreen Plus HIV Ag-Ab, Murex HIV Ag-Ab Combination, VIDAS HIV Duo, and Vironostika HIV Uniform II Ag-Ab. All assays were evaluated for the ability to detect p24 antigen from HIV-1 groups M and O, antibody-positive plasma samples from HIV-1 groups M and O, HIV-2, and 19 HIV seroconversion panels. Results indicate that although all combination assays can detect antibodies to HIV-1, group M, subtypes A to G, circulating recombinant form (CRF) A/E, and HIV-1 group O, their sensitivity varied considerably when tested using diluted HIV-1 group O and HIV-2 antibody-positive samples. Among combination assays, the AxSYM, Murex, and VIDAS HIV Duo Ultra assays exhibited the best antigen sensitivity (at approximately 25 pg of HIV Ag/ml) for detection of HIV-1 group M, subtypes A to G and CRF A/E, and HIV-1 group O isolates. However, the VIDAS HIV Duo Ultra assay had a lower sensitivity for HIV-1 group M and subtype C, and was unable to detect subtype C antigen even at 125 pg of HIV Ag/ml. The HIV antigen sensitivity of the VIDAS HIV Duo and Genscreen Plus combination assays was approximately 125 pg of HIV Ag/ml for detection of all HIV-1 group M isolates except HIV-1 group O while the sensitivity of Vironostika HIV Uniform II Ag-Ab and Enzygnost HIV Integral Ag-Ab assays for all the group M subtypes was >125 pg of HIV Ag/ml. Among the combination assays, the AxSYM assay had the best performance for detection of early seroconversion samples, followed by the Murex and VIDAS HIV Duo Ultra assays.

L22 ANSWER 1 OF 9 MEDLINE on STN

2004018747. PubMed ID: 14715727. Multicenter evaluation of a new, automated enzyme-linked immunoassay for detection of human immunodeficiency virus-specific antibodies and antigen. Sickinger Eva; Stieler Myriam; Kaufman Boris; Kapprell Hans-Peter; West Daniel; Sandridge Arnold; Devare Sushil; Schochetman Gerald; Hunt J C; Daghfal David. (Abbott Diagnostika GmbH & Co. KG, Wiesbaden, Germany. Abbott Laboratories, Abbott Park, Illinois.) Journal of clinical microbiology, (2004 Jan) 42 (1) 21-9. Journal code: 7505564. ISSN: 0095-1137. Pub. country: United States. Language: English.

AB A collaborative multicenter study was conducted to evaluate the sensitivity, specificity, and precision of a three-step, fully automated, qualitative microparticle-based enzyme-linked immunoassay (AxSYM HIV Ag/Ab Combo; Abbott Laboratories), designed to simultaneously detect (i) antibodies against human immunodeficiency virus type 1 (HIV-1) and/or type 2 (HIV-2) and (ii) HIV p24 antigen. A significant reduction in the HIV seroconversion window was achieved by combining detection of HIV antibodies and antigen into a single assay format. For 22 selected, commercial HIV seroconversion panels, the mean time of detection with the combined-format HIV antigen-antibody assay was

reduced by 6.15 days compared to that with a similar third-generation single-format HIV antibody assay. The quantitative sensitivity of the combination assay for the p24 antigen (17.5 pg/ml by use of the p24 quantitative panel VIH SFTS96') was nearly equivalent to that of single-format antigen tests. The combination assay demonstrated sensitive (100%) detection of anti-HIV immunoglobulin in specimens from individuals in CDC stages A, B, and C and from individuals infected with different HIV-1 group M subtypes, group O, or HIV-2. The apparent specificity for hospitalized patients (n = 1,938) was 99.90%. In a random population of 7,900 volunteer blood donors, the specificity (99.87%) was comparable to that of a third-generation single-format HIV antibody assay (99.92%) on the same donor specimens. In addition, the combination assay was robust to potential interfering specimens. The precision of the combination was high, with intra- and interrun variances of </=9.3% for each precision panel specimen or assay control and </=5.3% for the negative assay control.

L30 ANSWER 2 OF 4 MEDLINE on STN

95143180 Document Number: 95143180. PubMed ID: 7841107. Comparative analysis of HIV-1 and HIV-2 indeterminate western blot patterns. Ayisi N K; Aidoo M. (Virology Unit, Noguchi Memorial Institute for Medical Research, University of Ghana, Legon.) WEST AFRICAN JOURNAL OF MEDICINE, (1994 Jul-Sep) 13 (3) 164-7. Journal code: 8301891. ISSN: 0189-160X. Report No.: PIP-105635; POP-00244007. Pub. country: Nigeria. Language: English.

AB A comparison of HIV-1 and HIV-2 indeterminate Western blot patterns of Ghanaian sera collected between 1989 and 1990 was made. Antibodies to group specific antigen (GAG) gene products were most frequently detected both HIV-1 and HIV-2 indeterminate sera. HIV-2 GAG gene product p26 was shown to be a non-specific indicator of infection. Antibody to gp120, and envelope gene product of HIV-1 never occurred in indeterminate sera whereas antibodies to all the envelope gene products of HIV-2 were detected in indeterminate sera. A comparison of HIV-1 and HIV-2 indeterminate Western blot patterns of Ghanaian sera collected between 1989 and 1990 was made and interpreted according to new World Health Organization (WHO) criteria. For HIV-1 antibodies detection, Novopath Immunoblot assay kits were used. New LavblotII kits were used for detecting HIV-2 antibodies. In both cases, proteins of the specific virus type were used to detect anti-HIV proteins in sera by the enzyme linked immunoelectrotransfer blot (Western blot) technique. Sera and plasma after screening by enzyme-linked immunosorbent assay (ELISA) were used. Antibodies to group specific antigen (GAG) gene products were most frequently detected both HIV-1 and HIV-2 indeterminate sera. HIV-2 GAG gene product p26 was shown to be a non-specific indicator of infection. Analysis of HIV-1 indeterminate Western blot patterns showed the frequency of protein bands for 231 HIV-1 indeterminate sera. Antibodies for the GAG gene products, i.e., anti-55, anti-p24, and anti-p18 had high frequencies of occurrence with anti-p24 occurring 90.5% of the time. Analysis of HIV-2 indeterminate Western blot patterns showed the frequency of appearance of antibodies to the various viral gene products in 396 HIV-2 indeterminate sera. The GAG gene product p26 reacted with most (91.2%) of the 396 indeterminate sera. Comparison of HIV-1 and HIV-2 indeterminate Western blot patterns indicated that antibodies to p26 appeared 25% of the time in the negative control sera for HIV-2, whereas no antibodies to HIV-1 products were detected in any of the HIV-1 negative control sera. In the Western blot analysis using the WHO criteria, the frequencies of appearance of antibodies to the high molecular weight core proteins of

p24 (HIV-1) and p26 (HIV-2) were both quite high (90%). No antibody to the external envelope protein was detected for HIV-1 (anti-gp120), whereas antibody to a similar protein (anti-gp 105) was detected in 4.3% of the HIV-2 indeterminate sera.

L30 ANSWER 3 OF 4 MEDLINE on STN

91303716 Document Number: 91303716. PubMed ID: 1712863. Characterization of murine monoclonal antibodies directed against the core proteins of human immunodeficiency virus types 1 and 2. Niedrig M; Hinkula J; Harthus H P; Broker M; Hopp L; Pauli G; Wahren B. (Research Laboratories of Behringwerke, Marburg, Federal Republic of Germany.) JOURNAL OF VIROLOGY, (1991 Aug) 65 (8) 4529-33. Journal code: 0113724. ISSN: 0022-538X. Pub. country: United States. Language: English.

AB Monoclonal antibodies (MAbs) raised against the core proteins of human immunodeficiency virus type 1 (HIV-1; laboratory strain HTLV-IIIB) and HIV-2 (strain ROD) were investigated in a variety of tests, e.g., enzyme-linked immunosorbent assay (ELISA), immunostaining of Western immunoblots, immunofluorescence, immunoprecipitation, and alkaline phosphatase anti-alkaline phosphatase assay. The MAbs were grouped according to their cross-reactions. Seven HIV-1-specific MAbs reacted exclusively with HIV-1, and five showed cross-reactivity with HIV-2 and simian immunodeficiency virus of macaques in ELISA. Four of the 15 MAbs against HIV-2 reacted only with the HIV-2 protein p26. Six showed cross-reactivity with HIV-1, and five showed a broad reaction with all three viruses. Overlapping 30-amino-acid-long peptides derived from the p24 protein sequence of HIV-1 were used in an epitope-mapping system. Three different immunogenic regions (A, B, and C) could be defined. Specific regions where anti-HIV-1 and -HIV-2 MAbs cross-reacted were mapped with shorter oligopeptides.